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The Bionic Telescope

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Four hundred years after children in a spectacle makers workshop accidentally discovered the telescope, the development of this device has been a continuous replacement of the “natural” by the deliberate. The human eye is gone. The lens is gone. The tube is gone. The dome is on the verge of going. The size of the optics are ceasing to be set by transportation limits. Adaptive optics are preferred to stable optics. We deliberately break the Lagrange invariant. We focus on lasers instead of stars, and natural observing environments are being replaced by adaptive environments. The goals for the new ground based telescope encompass the oldest and newest ideas, to find signs of life elsewhere, and to find how all the universe developed.